Patent

HE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants): André DeHon, et al.

Re: Information Disclosure

Statement

Serial No.: 10/627,405

Group: 2817

Filed: July 24, 2003

Examiner: Crane, Sara W.

For: "STOCHASTIC ASSEMBLY OF

Our Ref: B-5025NP 620801-2

SUBLITHOGRAPHIC NANOSCALE

) Date: September 14, 2004

INTERFACES"

Mail Stop RCE Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the Applicants' duty to disclose information which may be material to the examination of this application, the undersigned respectfully requests that the Examiner consider on the merits the documents listed on the enclosed Form PTO-1449 (modified). Copies of the foreign patent documents and the nonpatent publications listed on the enclosed Form PTO-1449 (modified) are enclosed herewith for the Examiner's convenience. Copies of the U.S. patent documents listed on the enclosed Form PTO-1449 (modified) are not enclosed, pursuant to Deputy Commissioner Stephen G. Kunin's Pre OG Notice dated July 11, 2003, with the exception of U.S. Patent Application Nos. 10/853,907, 10/856,115, and 10/925,863 because these applications have not yet been published.

The documents listed on the enclosed Form PTO-1449 (modified) include those cited in the International Search Report for the corresponding PCT Patent Application No. PCT/US03/01555. A copy of the Search Report (6 pages) is enclosed herewith.

The documents listed on the enclosed Form PTO-1449 (modified) include those cited in the International Search Report for a related PCT Patent Application No. PCT/US03/23199. A copy of the Search Report (7 pages) is enclosed herewith.

It should be noted that the above-identified application may be related by subject matter to the following U.S. Application(s): 10/347,121, filed on January 17, 2003 (published as United States Patent Application Publication No. 2003/0200521 A1); 10/627,406, filed July 24, 2003 (published as United States Patent Application Publication No. 2004/00113139 A1); 10/853,907, filed May 25, 2004; 10/856,115, filed May 28, 2004; and 10/925,863, filed August 24, 2004. Pursuant to 37 C.F.R. 1.56(a) and M.P.E.P. 2004, paragraph 9, the applicant brings these co-pending applications to the attention of the Examiner. The Examiner should consider this information during the prosecution of the above-identified application. However, citation of these applications does not constitute an admission that the claims of the present application are substantially similar or similar to those of the applications listed above.

The filing of this Information Disclosure Statement (IDS) shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

This IDS is being submitted concurrently with a Request for Continued Examination (RCE). Therefore, no fees should be due and this IDS should be fully considered on the merits, in accordance with 37 C.F.R. § 1.97(d).

The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. (Notice of January 9, 1992, 1135 O.G. 13-25, at 25.)

The person making this statement is the practitioner who signs below on the basis of information supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c)) and on the basis of information in the practitioner's file.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Priority Mail in an package addressed to the "Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450",

on September 14, 2004 by Shana Morda.

Respectfully submitted,

Robert Popa Attorney for Applicant Reg. No. 43,010

LADAS & PARRY 5670 Wilshire Boulevard Suite 2100 Los Angeles, CA 90036 (323) 934-2300

Enclosures: Form PTO-1449 (modified) (3 pages)

Copy of Search Report for PCT/US03/01555 (6 pages) Copy of Search Report for PCT/US03/23199 (7 pages) Copy of each Non-U.S. Patent document listed on Form PTO-1449 (modified), with the exception of U.S. Patent Application Nos. 10/853,907, 10/856,115, and

10/925,863

Information Disclosure 9th USSN 10/627,405 September 14, 2004

Page 4

SEP 1 7 2004

Form PTO-1449 (Modified DEMARK) Page 1 of 3	ATTY DOCKET NO. B-5025NP 620801-2	U.S. SERIAL NO. 10/627,405
LIST OF PATENTS AND PUBLICATIONS STATEMENT	APPLICANTS André DeHon, et al.	
STATEMENT	FILING DATE July 24, 2003	<i>GROUP</i> 2817

U.S. PATENT DOCUMENTS

			<u>v</u>	.s. r	ATENT	DOCUMENTS
EXAMINER INITIAL	DOCUMENT NUMBER	ISSUE DATE	NAME	CLASS	SUB- CLASS	FILING DATE or 102(e) DATE IF APPROPRIATE
	10/853,907		DeHon et al.			5/25/2004
	10/856,115	,	DeHon et al.			5/28/2004
	10/925,863		DeHon et al.			8/24/2004
	6,128,214	10/2000	Kuekes et al.	364	151	
	6,256,767 B1	7/2001	Kuekes et al.	716	9	
	6,314,019 B1	11/2001	Kuekes et al.	365	151	
	2002/0175390 A1	11/2002	Goldstein et al.	257	481	
	2003/0089899 A1	5/2003	Lieber et al.	257	9	
	2003/0200521 A1	10/2003	DeHon et al.	716	16	
	2003/0206436 A1	11/2003	Eaton, Jr et al.	365	177	
	2004/0113139 A1	6/2004	DeHon et al.	257	9	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	ISSUE DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO
	03/063208 A2	7/2003	WO			
	2004/061859 A2	7/2003	WO			
Y X	2004/034467 A2	7/2003	WO			

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified) Page 2 of 3	ATTY DOCKET NO. B-5025NP 620801-2	u.s. serial no. 10/627,405
LIST OF PATENTS AND PUBLICATIONS	APPLICANTS André DeHon, et al.	·
STATEMENT	FILING DATE July 24, 2003	GROUP 2817

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Games Document (including nutnor, intig, bate, restinent rayes, acc.)
Albrecht, O., et al., "Construction and Use of LB Deposition Machines for Pilot Production," Thin Solid Films, Vol. 284-285, PP. 152-156 (September 15, 1996).
Björk, M.T., et al., "One-Dimensional Steeplechase for Electrons Realized," Nano Letters, Vol. 2, No. 2, pp. 87-89 (2002).
Brown, C.L., et al., "Introduction of [2]Catenanes Into Langmuir Films and Langmuir-Blodgett Multilayers. A Possible Strategy for Molecular Information Storage Materials," Langmuir, Vol. 16, No. 4, pp. 1924-1930 (2000).
Chen, Y., et al., "Nanoscale Molecular-Switch Crossbar Circuits," Institute of Physics Publishing, Nanotechnology 14, pp. 462-468 (2003).
Chen, Y., et al., "Self-Assembled Growth of Epitaxial Erbium Disilicide Nanowires on Silicon (001)," Applied Physics Letters, Vol. 76, No. 2, pp. 4004-4006 (June 26, 2000).
Chou, S.Y., "Sub-10 nm Imprint Lithography and Applications," J. Vac. Sci. Technol. B, Vol. 15, No. 6, pp. 2897-2904 (Nov/Dec 1997).
Collier, C.P., et al., "A [2]Catenane-Based Solid State Electronically Reconfigurable Switch," Science, Vol. 289, pp. 1172-1175 (August 18, 2000).
Collier, C.P., et al., "Electronically Configurable Molecular-Based Logic Gates," Science, Vol. 285, pp. 391-394 (July 16, 1999).
Cui, Y., et al., "Diameter-Controlled Synthesis of Single-Crystal Silicon Nanowires," Applied Physics Letters, Vol. 78, No. 15, pp. 2214-2216 (April 9, 2001).
Cui, Y., et al., "Doping and Electrical Transport in Silicon Nanowires," The Journal of Physical Chemistry, Vol. 104, No. 22, pp. 5213-5216 (June 8, 2000).
Cui, Y., et al., "Functional Nanoscale Electronic Devices Assembled Using Silicon Nanowire Building Blocks," Science, Vol. 291, pp. 851-853 (February 2, 2001).
Dekker, C., "Carbon Nanotubes As Molecular Quantum Wires, " <i>Physics Today</i> , pp. 22-28 (May 1999).
Derycke, V., et al., "Carbon Nanotube Inter- and Intramolecular Logic Gates," Nano Letters, Vol. 1, No. 9, pp. 453-456 (September 2001).

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified) Page 3 of 3	ATTY DOCKET NO. B-5025NP 620801-2	<i>U.S. SERIAL NO.</i> 10/627,405	
LIST OF PATENTS AND PUBLICATIONS STATEMENT	APPLICANTS André DeHon, et al.		
	FILING DATE July 24, 2003	group 2817	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Goldstein, S.C., et al., "NanoFabrics: Spatial Computing Using Molecular Electronics," Proc. Of The 28th Annual International Symposium on Computer Architecture," pp. 1-12 (June 2001).
Gudiksen, M.S., et al., "Growth of Nanowire Superlattice Structures for Nanoscale Photonics and Electronics, " <i>Nature</i> , Vol. 415, pp. 617-620 (February 7, 2002).
Huang, Y., et al., "Directed Assembly of One-Dimensional Nanostructures Into Functional Networks," <i>Science</i> , Vol. 291, pp. 630-633 (January 26, 2001).
Huang, Y., et al., "Logic Gates and Computation From Assembled Nanowire Building Blocks," Science, Vol. 294, pp. 1313-1317 (November 9, 2001).
Lauhon, L.J., et al., "Epitaxial Core-Shell and Core-Multishell Nanowire Heterostructures," Nature, Vol. 420, pp. 57-61 (November 7, 2002).
Lieber, C.M., "Nanowire Superlattices," Nano Letters, Vol. 2, No. 2, pp. 81-82 (February 2002).
Morales, A.M., et al., "A Laser Ablation Method for the Sythesis of Crystalline Semiconductor Nanowires," <i>Science</i> , Vol. 279, pp. 208-211 (January 9, 1998).
Tans, S.J., et al., "Room-Temperature Transitor Based On A Single Carbon Nanotube," Nature, Vol. 393, pp. 49-52 (May 7, 1998).
Ulman, A., "Part Two: Langmuir-Blodgett Films," An Introduction to Ultrathin Organic Films, Section 2.1, pp. 101-132 (1991).
Whang, D., et al., "Nanolithography Using Hierarchically Assembled Nanowire Masks," Nano Letters, Vol. 3, No. 7, pp. 951-954 (2003).
Wu, Y., et al., "Block-by-Block Growth of Single-Crystaline Si/SiGe Superlattice Nanowires," Nano Letters, Vol. 2, No. 2, pp. 83-86 (2002).

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.